



INFRASTRUCTURE

MINING & METALS

NUCLEAR, SECURITY & ENVIRONMENTAL

OIL, GAS & CHEMICALS

# FLNG Global Conference

Amsterdam, The Netherlands

## Onshore to Offshore

### Bringing onshore expertise into offshore

Matthew Furness  
LNG Business Development Manager





# Company Overview

One of the world's most experienced builders

**119** Yrs.  
Experience



Private company

Ongoing projects  
in nearly **40** nations

Revenue 2016  
**\$32** billion  
Financially Strong



**55,400**  
Bechtel employees  
8,000 in OG&C

**4**  
Global  
business  
units



Engineering News-Record (ENR)  
May 2016

## Quality

right the first time, systems engineering,  
closed loop corrective actions

**38**  
Offices  
Worldwide



Over  
**265**  
Active Projects



Nearly  
**130**  
Customers

## Sustainability

Protecting people and the environment

## Safety

Target Zero - Accident  
Awareness Program



# Integrated EPC for LNG Solutions

## Full Scope of Services

Studies	FEED	EPC	Startup	Operations
Solution Centric Technology	Sustainability Regulator Support	Modularization Direct Hire	Operator Training	Plant Support Services
EXECUTION EXCELLENCE				

completed projects **9** and

**18** trains in the last **18** years

completed **9** LNG trains in 2 years with

**6** LNG trains currently under construction

in **7** countries

completed **105** MTPA total liquefaction

with

**75** MTPA representing

**30%** of global LNG production





# Our LNG portfolio – last 20 years







# Best Practice Project Delivery



**Improve Safety  
Performance**

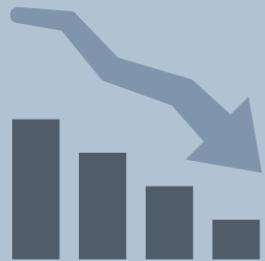


**Reduce Schedule  
Durations**

**Increase Skills  
and Productivity**



**Utilise Global  
Supply Chains**



**Build EPC  
Execution**



**Incorporate  
Sustainable  
construction**



# Onshore LNG

## Modular Fabrication

- Bechtel Self-Perform Model
- Delivered +220,000 MT Modules

## Site Works

1

## EPC Innovation

- CIMTAS Pipe Prefabrication
- 4D Visualization

6

## Pre-Treatment

- Process know-how

4

3

2

## Global Procurement

- 12 Billion (2015) total spend

8

## Jetty/Marine Terminals

- Self-perform for ports
- Lower faced assets
- Integrated product delivery with balance of plant

9

## Commissioning & Start-Up

5

7

## Liquefaction Technology

- Range of technologies on a targeted basis

## Tanks

- BICSS – Bechtel Integrated Concrete & Steel System





# Onshore LNG – Mid Scale

## ISBL / OSBL

- Fit for purpose
- Reduced volume of equipment
- Equipment standardization
- Strip away unnecessary specifications
- Plug and play

1

2

## Liquefaction

- Vertically integrated – Chart IPSMR ® Technology
- Chart system and equipment effectively sizes for smaller capacity
- Sized with standard equipment

3

## Efficient Contracting Strategy

- Single-sourced lump-sum EPC contract strategy provides lowest cost of ownership
- Owner's cost reduced by improved speed to market

## Jetty/Marine Terminals

4





# Offshore – Nearshore FLNG

## ISBL / OSBL

- Equipment standardization
- Strip away unnecessary specifications
- Plug and play

2

## Mooring

- In-house design of mooring and riser system, driven by field location
- Jetty / Marine, Yoke, Spread, Turret

9

## Commissioning & Start-Up

## Jetty/Marine Terminals

6

5

## Pre-Treatment

- Process know-how

3

4

## Liquefaction Technology

- Chart IPSMR ®
- Fully integrated

1

8

## Integration

7

## Hull & LNG Storage

## Modular Fabrication

- Bechtel self-perform model
- Asia Pacific and GOM regional yard experience and knowledge
- Key focus on module yards in Gulf of Mexico, Indonesia and Thailand
- Facility Layout
- Optimized facility layout without compromising Safety Systems





# What does this mean to our clients?

## Bechtel Nearshore FLNG leverages

- Pre-treatment and front end process know-how
- Extensive LNG know-how
- Chart IPSMR ® liquefaction process
- Self perform modular construction for topsides
- Standardization
- Bechtel experience and capability
- Commissioning & Start Up
- Delivery assurance, performance and process guarantees





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